

Claims

- [c1] What is claimed is:
1. A method for handling timers in a wireless communication system, the method comprising:
- starting a Timer_Poll_Periodic timer for a Radio Link Control Acknowledged Mode (RLC AM) entity;
- performing a reset procedure for the RLC AM entity; and
- restarting the Timer_Poll_Periodic timer in response to the Timer_Poll_Periodic timer expiring prior to completion of the reset procedure.
- [c2] 2. The method of claim 1 further comprising restarting the Timer_Poll_Periodic timer in response to the reset procedure.
- [c3] 3. The method of claim 1 further comprising maintaining a value of the Timer_Poll_Periodic timer and maintaining operation of the Timer_Poll_Periodic timer in response to the reset procedure.
- [c4] 4. The method of claim 1 further comprising:
- re-establishing the RLC AM entity; and
- restarting the Timer_Poll_Periodic timer after re-establishment of the RLC AM entity.
- [c5] 5. The method of claim 1 further comprising:
- re-establishing the RLC AM entity; and
- maintaining a value of the Timer_Poll_Periodic timer and maintaining operation of the Timer_Poll_Periodic timer after re-establishment of the RLC AM entity.
- [c6] 6. The method of claim 1 further comprising:
- starting a Timer_Status_Periodic timer; and
- restarting the Timer_Status_Periodic timer in response to the Timer_Status_Periodic timer expiring prior to the completion of the reset procedure.
- [c7] 7. The method of claim 6 further comprising restarting the Timer_Status_Periodic timer in response to the reset procedure.

- [c8] 8.The method of claim 6 further comprising maintaining a value of the Timer_Status_Periodic timer and maintaining operation of the Timer_Status_Periodic timer in response to the reset procedure.
- [c9] 9.The method of claim 6 further comprising:
re-establishing the RLC AM entity; and
restarting the Timer_Status_Periodic timer after re-establishment of the RLC AM entity.
- [c10] 10.The method of claim 6 further comprising:
re-establishing the RLC AM entity; and
maintaining a value of the Timer_Status_Periodic timer and maintaining operation of the Timer_Status_Periodic timer after re-establishment of the RLC AM entity.
- [c11] 11.The method of claim 1 further comprising:
receiving a Service Data Unit (SDU) and starting a Timer_Discard timer associated with the SDU prior to the reset procedure;
maintaining a value of the Timer_Discard timer if the Timer_Discard timer expires prior to the completion of the reset procedure;
stopping the Timer_Discard timer if the SDU is discarded in response to the reset procedure; and
restarting the Timer_Discard timer, or maintaining a value of the Timer_Discard timer and maintaining operation of the Timer_Discard timer if the SDU is not discarded in response to the reset procedure.
- [c12] 12.The method of claim 11 further comprising stopping the Timer_Discard timer if the SDU is discarded and if a condition for triggering the reset procedure is detected.
- [c13] 13.The method of claim 11 further comprising:
re-establishing the RLC AM entity; and
stopping the Timer_Discard timer after re-establishment of the RLC AM entity.
- [c14] 14.The method of claim 1 further comprising:
starting a Timer_Poll timer;

maintaining a value of the Timer_Polltimer if the Timer_Polltimer expires prior to the completion of the reset procedure; and
stopping the Timer_Polltimer in response to the reset procedure.

[c15] 15.The method of claim 14 further comprising stopping the Timer_Polltimer if a condition for triggering the reset procedure is detected.

[c16] 16.The method of claim 14 further comprising:
re-establishing the RLC AM entity; and
stopping the Timer_Polltimer after re-establishment of the RLC AM entity.

[c17] 17.The method of claim 1 further comprising:
starting a Timer_Poll_Prohibit timer; and
stopping the Timer_Poll_Prohibittimer in response to the reset procedure.

[c18] 18.The method of claim 17 further comprising stopping the
Timer_Poll_Prohibittimer if a condition for triggering the reset procedure is detected.

[c19] 19.The method of claim 17 further comprising:
re-establishing the RLC AM entity; and
stopping the Timer_Poll_Prohibittimer after re-establishment of the RLC AM entity.

[c20] 20.The method of claim 1 further comprising:
starting a Timer_Status_Prohibit timer; and
stopping the Timer_Status_Prohibittimer in response to the reset procedure.

[c21] 21.The method of claim 20 further comprising stopping the
Timer_Status_Prohibittimer if a condition for triggering the reset procedure is detected.

[c22] 22.The method of claim 20 further comprising:
re-establishing the RLC AM entity; and
stopping the Timer_Status_Prohibittimer after re-establishment of the RLC AM entity.

- [c23] 23.The method of claim 1 further comprising:
starting a Timer_EPC timer prior to the reset procedure;
starting anEstimated PDU Counter (EPC) mechanism prior to the reset
procedure; and
stopping theEPC mechanism in response to the Timer_EPC timer expiring prior
to the completion of the reset procedure.
- [c24] 24.The method of claim 23 further comprising stopping the EPC mechanism in
response to the reset procedure, or when a condition for triggering the reset
procedure is detected.
- [c25] 25.The method of claim 23 further comprising:
re-establishing the RLC AM entity; and
stopping the EPC mechanism after re-establishment of the RLC AM entity.
- [c26] 26.The method of claim 1 further comprising:
starting a Timer_RST timer;
re-establishing the RLC AM entity; and
stopping the Timer_RST timer after re-establishment of the RLC AM entity.
- [c27] 27.The method of claim 1 further comprising:
starting a Timer_MRW timer;
re-establishing the RLC AM entity; and
stopping the Timer_MRW timer after re-establishment of the RLC AM entity.